

# The Great **SAN FRANCISCO** EARTHQUAKE of 1906



**A century ago, the American West's greatest city was nearly destroyed**

Fire Chief Dennis Sullivan had warned San Francisco officials for years that the city's firefighting system was inadequate.

by Bryan Brown

**A**s it so often does, disaster struck at one of the most peaceful moments of the day. April 18, 1906, dawned a calm spring Wednesday in San Francisco, California. While most of the city slept, Police Officer Jesse Cook walked his beat in the cool morning air. At the eastern end of Washington Street, near San Francisco Bay, he stopped to talk with a merchant at his vegetable stand.

Suddenly, at 5:12 a.m., there was “a deep and terrible rumbling,” as Cook later said. Looking up, he thought he saw the ocean spilling onto the street. “The earth seemed to rise under me,” he remembered. “At the same time, [the street] opened up in several places, and water came up out of these cracks. . . . I saw the top story of the building at the southwest corner of Washington and Davis streets fall and kill [a man].”

Similar scenes took place across the city. Cobblestone streets rolled like a tidal wave. Buildings came crashing down. City Hall, which had taken \$6 million and 26 years to build, quickly became a pile of **rubble**. So too did 95 percent of the city's old brick chimneys. One of them fell into the home of Fire Chief Dennis Sullivan, who later died from his injuries.

Finally, the earth stopped shaking. People who had run out into the streets held their breaths. The great earthquake of 1906 had lasted between 45 and 60 seconds. But for San Francisco, the devastation was just beginning.



In just about a minute, the earthquake completely changed the face of San Francisco. Then came the fires.

## WORDS to Know

- **boomtown**: a city that undergoes quick economic and population growth.
- **rubble**: a pile of rock fragments.
- **cistern**: an artificial reservoir filled with water.
- **tectonic plate**: a section of Earth's crust.





LIBRARY OF CONGRESS (2)



## Fire From Everywhere

As soon as the earthquake ended, a new danger took its place: fire. Fire came from everywhere. Gas pipes broke. High-tension electrical lines toppled from utility poles. Hot coals and kerosene spilled onto wooden floors. According to legend, one woman's stove blew up as she was making breakfast. San Franciscans would later call this the Ham and Eggs Fire.

As if that were not bad enough, firefighters found that they had no water pressure from the fire hydrants. The city's water pipes had burst.

Fire Chief Sullivan had argued for years that San Francisco was a **tinderbox**, a place in danger of easily catching fire. He had begged the city to build a firefighting system using ocean water, and to repair and refill its aging **cisterns**. No one had done those things.

Now it seemed as if everything that could go wrong did. Fires from different directions connected, turning into huge walls of flames. In some places, firefighters tried to make firebreaks. This meant dynamiting a group of buildings in the path of the fires, in the hope that the flames would die out in the rubble. But the fires were moving too fast, and the firebreaks just added to their fury.

## "Impassable With Wreckage"

Starting that morning, tens of thousands of people—now without homes—took to the streets. One survivor described the sight. "The sidewalks, already almost impassable with wreckage, were filled for miles . . . with household goods of every known variety." Families carried all their worldly possessions with them. Another survivor remembered "two bicycles with a bedspring and mattress between them on which an invalid woman was carried along."

There were many acts of bravery. Without time to put on his uniform, Brigadier General Frederick Funston dashed up and down the burning streets, taking charge. Soon, the General wired Washington, D.C., requesting tents for the newly homeless.

No one was braver than San Francisco's firefighters. They waged one losing battle after another against the raging flames. Neighborhood residents did the same. Banding together, they used buckets of water, wet towels or drapes, or whatever they could to fight each fire as it approached.

## A Fact of Life

For three long days, the fires burned. From the start, they had been concentrated in downtown San Francisco and the working-class area south of Market Street. The fires consumed poor neighborhoods, where wooden

## Not If, But When

**T**he earthquake of 1989 was a wakeup call for many San Franciscans. Measuring 7.2 on the Richter scale, it killed 63 people, injured 3,500, and left more than 12,000 homeless. Many people now believe the question is not *will* another earthquake shake the city, but *when* will it?

Bill Bryant, a senior geologist at the California Geological Survey, is one of the experts keeping track of the situation. A recent study, he says, estimates a 62 percent probability of another earthquake of 6.7 or higher along the San Andreas Fault within the next 30 years. Other nearby faults are also in danger of rupturing.

Yet California has learned how to prepare from past experience, Bryant says. "Earthquakes are kind of nature's lab experiment," he tells *JS*. "Each earthquake . . . has a potential for advancing the scientific understanding." The 1906 earthquake significantly added to knowledge about what really causes an earthquake, Bryant adds. "Before that time, [scientists] weren't really sure what the relationship between faults and earthquakes was. The 1906 quake kind of allowed them to observe a large surface-rupturing earthquake and put the two things together."

houses were pushed together like firewood. They also raced up the streets of Nob Hill, where millionaires, including railroad tycoon Leland Stanford, had built their mansions.

Just in time, soldiers created firebreaks at Van Ness Avenue, which stopped the flames from spreading to the city's Western Addition. Three days after they started, the fires finally burned themselves out.

The stricken city took stock. More than 28,000 buildings had been completely destroyed. At least 500 people had been killed; some estimates have run as high as 3,000. More than 225,000 were left homeless.

Immediately, aid began pouring into San Francisco. In Washington, President Theodore Roosevelt, Secretary of War William Howard Taft, and Congress joined forces to send emergency supplies and millions of dollars. Millions more poured in from other countries.

San Francisco rebuilt to become the great city it is today. In 1989, it suffered another major earthquake. While the damage was extensive, it was far less severe than in 1906. Still, the possibility of major earthquakes





The San Andreas Fault runs through California from Imperial Valley to Point Arena.

remains a fact of life in San Francisco (*see sidebar*). For many San Franciscans, it is simply a price to be paid for living in the beautiful City by the Bay. **JS**

## Your Turn

### WORD MATCH

- |                   |                             |
|-------------------|-----------------------------|
| 1. boomtown       | A. without question         |
| 2. fault          | B. pile of rock fragments   |
| 3. indisputable   | C. fast-growing city        |
| 4. rubble         | D. deep break in the earth  |
| 5. tectonic plate | E. section of Earth's crust |

### THINK ABOUT IT

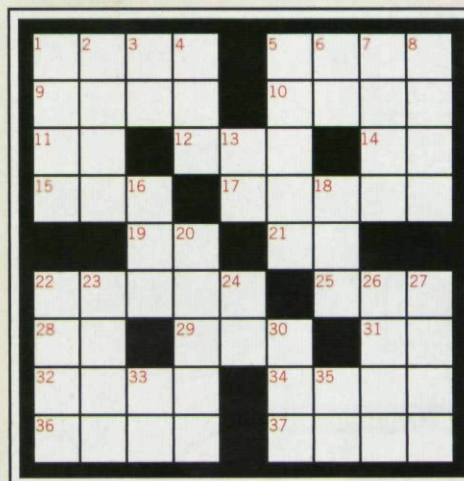
- What caused the San Francisco earthquake of 1906? What caused the fires that followed?
- Are there any lessons from the earthquake that could apply to modern disasters? Explain.



**EARTHQUAKE FACTS AND SAFETY TIPS**  
[weatherwizkids.com/earthquake1.htm](http://weatherwizkids.com/earthquake1.htm)

## CROSSWORD

### San Francisco Earthquake



The starred red clues refer to the article on pp. 18-21.

Puzzle by  
Kathy Wilmore

#### ACROSS

- Table tennis: \_\_\_-Pong
- A young sheep
- What Italians call their capital
- "Peek-a-boo, \_\_\_ you!" (2 words)
- Latin for *and others*: \_\_\_ cetera
- \*12 The \_\_\_ Andreas Fault runs through 28 Across.
- Brazil's continent (abbr.)
- A wood-cutting tool
- A hungry cat will \_\_\_ you. (2 words)
- Prefix meaning *to or toward*, as in \_\_\_ fix
- Compass point opposite NW
- \*22 Date the earthquake struck: \_\_\_ 18, 1906
- Teaspoon (abbr.)
- \*28 State where the 1906 quake took place (postal abbr.)
- One of the long curved bones protecting your heart
- Alcoholics Anonymous (abbr.)
- "Talk to you soon," chat-room style
- \*34 The quake drove \_\_\_ of thousands of people into the streets.
- Injection, as for the flu
- Young fellows

#### DOWN

- \*1 Theodore Roosevelt was \_\_\_ (abbr.) in 1906.
- Tiny bit
- Where to find Albuquerque (state abbr.)
- \*4 Fires were set off when \_\_\_ pipes broke.
- \*5 High-tension electrical \_\_\_ fell from poles.
- Hard \_\_\_ nails
- Flat-topped hill
- \*8 Officer Jesse Cook was walking the \_\_\_ when the quake struck.
- Morning hours (abbr.)
- \*16 The 1 Down, the Secretary of \_\_\_, and Congress sent aid.
- \*18 People used \_\_\_ towels and drapes to fight fires.
- Before all others
- \*22 There were many \_\_\_ of bravery in the quake's aftermath.
- \*23 Firebreaks were made in the fire's \_\_\_.
- 51 in Roman numerals
- \*26 Fill earth made of \_\_\_ and soil was unstable.
- Move beyond or go by
- Recipe abbreviation for *bottle*
- Attention-getting call (slang)
- Abbreviation for *each*

The solution to this puzzle is in your Teacher's Edition.

Copyright of Junior Scholastic is the property of Scholastic Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.